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Your Commodore, a free supplement to Personal Computing Today, July 1984

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TOLAPAR the last survivor in the
cassie and your only weapon is
your side of the street.

You are shot off back from the enemy who are scoring the goal well. You must score the goals in Bridgegate Park, if they reach that the game is over. How long will you survive?

These results are in keeping with the findings of other studies that suggest that the use of a single, standardized, and validated instrument is the most reliable method for assessing the prevalence of mental health problems in a community sample.

- **Control Sequence** is in two parts: Type=Listing 8, which defines the characters, Prefs and then Mfns. How type is Listing 2. Also also code at bottom.

100-1000 more games today
10000-100000+ on average available
every afternoon

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Abstract

Abstract

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References

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Abstract

FIGURE 1 ■ *How much time do you spend on your computer each day?*

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

[illegible]

Time

DOI: 10.1002/for

Keywords: child sexual abuse; disclosure; social support; coping strategies

11. **QUESTION** The following table shows the number of people who have been convicted of a crime in the United States from 1990 to 2000. The number of people convicted of a crime is given in thousands.

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

Tri5 GMM is played with three dice which are displayed on this screen.

The demand for energy has
been increasing in the last few



■ **Malware 1** – defines characteristics for Control System

[illegible]

These three studies and the comparison will be printed in the journal.

If one of the dice shows the side you backed you get double your stake money back. If two of the dice show your side you get triple your stake money back, and if all the dice show the side you backed you get four times your stake money returned. If none of them show your side you lose your stake.

143-1100 major game bugs
143000-143999 miscellaneous user-submitted
bugs or issues

[illegible]

0000-0001-9000-0000

[illegible]

Abstract

100

D11-1200
 P1: position of number on dice
 N1: number of dice right
 T: total score
 O1: overall position

Age Group	Male	Female
0-14	95	85
15-24	75	65
25-34	65	55
35-44	55	45
45-54	45	35
55-64	35	25
65-74	45	35
75-84	35	25
85+	25	15

By 1990, however, the policy was being questioned.

Full manuscript and reference available at:

Figure 1

[illegible]

PROGRAM

Petroliers are doomed unless you
can get them to safety. Thomas
Turnbull gives you the chance to
be a hero — or end in a
multi-coloured blast

Trap



Find and use your 64's hidden memory

There's much more RAM than you might have thought tucked away in the Commodore 64. Allen Webb shows where it is and how to make it work for you.



ONE OF the aspects which fascinates the Commodore 64 from the "big name" is its large memory. While it is true that only about 38K is accessible from BASIC, with the aid of a few short routines, you will have ready access to around 50K.

First let me ask some questions:

- Are you fed up with converting your machine code routines or blocks of data into lengthy BASIC loaders (similar to listing 2)?
- Are you interested in simple animation or do you wish to have access to several screens of data?
- Do you wish that you had a few kilobytes of protected data area for your adventure or simulation?
- Do you want to move blocks of data around rapidly and easily?
- Are you just an off-beatist?

If you answer yes to any of these questions then read on.

Before launching into description of the routines, it is necessary to describe how RAM is organized and controlled on the 64.

Consider Figure 1. The only obvious parts of RAM available for use are the BASIC area and the spare area. So where is the rest of the RAM?

The answer, hiding behind the BASIC and the I/O areas. Any address in these areas is shared by both RAM and ROM or I/O. The switch is that a value PORted to an address will be put into the RAM but a PEEK will reflect the value in ROM, not RAM.

Fortunately, the 6510 pro-

cessor has an eight-bit control register at location 1. This location controls a whole handful of functions, as Figure 2 indicates. By setting the correct bit to one, the ROM area controlled by that bit will be switched out and the RAM will become available for use. If the bit is set, the ROM is switched back in.

bit	function
0	switch for basic ROM
1	switch for external ROM
2	switch for I/O area
3	cassette write line
4	cassette switch sense
5	cassette motor control

• Figure 2 — the function of location 1

Warning: Any attempt to switch out ROM by PORing values into location 1 from BASIC will cause the machine to crash.

The routines described here use the switching out of ROMs to give you easy access to about 38K from BASIC.

Listing 1 gives the source code for the routines. I've included the ones you may prefer to extract portions of modify it to suit your own purposes.

The first routine is called *Blocksave*. This routine will save a specified block of memory to cassette or disc. Due to certain problems with timing with the interrupts disabled, the routine will not SAVE the block behind 50000 to 5FFFF. The system is simple: 570 49152 "transfer" device, start address and address

hexadecimal	decimal	size of RAM	usage
0000-000F	0-1524	5024	system
0040-007F	1024-2047	5024	video memory
0080-00FF	2048-4095	2048	BASIC area
5A00-5BFF	4096-49151	8192	BASIC ROM
9C00-9C7F	49152-52047	4096	spare RAM
9D00-9DFF	52048-57343	4096	I/O colour RAM
9E00-9FFF	57344-65535	8192	external ROM

• Figure 1 — Commodore 64 general memory map

 commodore


where Device is 1 for cassette or 2 for disc, as in 2.

As an example, to SAVE the BASIC ROM to disc use:
 STS 49152 "BASIC
 ROM" \$2:10:4096,10:4096:1

Location 1000 is used as a flag to determine whether you want to save the RAM under the BASIC ROM or not. A zero value will leave the ROM alone, a nonzero value will switch the ROM out.

Notice, if you precede the above example with POKE1000,1 then you will SAVE the RAM under the ROM, not the ROM. You will, however, get a LOAD error when you reload the same RAM system you have problems with now (alas!), you can ignore the error.

Note: Any programs saved with Modosave must be loaded using the command:

LOAD ""device,1

otherwise it will not LOAD

into the correct place.

As mentioned earlier, you cannot FLDS the ROM areas. The new routine, named Festival, will do this job. The syntax is:

STS address, address
 the contents of the address will be returned in location 800. This routine will work on all areas.

The RAM under the ROMs offers great possibilities as virtual storage for animation or databases. The next Commodore Modosave is included to assist such applications. Quite simply Modosave will take a specified size of memory contents and put it at a specified location. The syntax is:

STS start address, to do
 where to is the start address of the block
 is is the finish address of the block
 do is the destination address

Demonstrations 1 and 2 use this command to show you how to create multiple

screens for data or animation. As with Modosave, a flag is available to decide which

```

10 PRINT "PRESS CTRL+END to save the screen to disk"
20 GOTO 100
30 PRINT "PRESS CTRL+END to load the screen"
40 GOTO 100
50 PRINT "PRESS CTRL+END to quit"
60 GOTO 100
70 PRINT "PRESS CTRL+END to save the screen"
80 GOTO 100
90 PRINT "PRESS CTRL+END to load the screen"
100 GOTO 100
110 PRINT "PRESS CTRL+END to quit"
120 GOTO 100
130 PRINT "PRESS CTRL+END to save the screen"
140 GOTO 100
150 PRINT "PRESS CTRL+END to load the screen"
160 GOTO 100
170 PRINT "PRESS CTRL+END to quit"
180 GOTO 100
190 PRINT "PRESS CTRL+END to save the screen"
200 GOTO 100
210 PRINT "PRESS CTRL+END to load the screen"
220 GOTO 100
230 PRINT "PRESS CTRL+END to quit"
240 GOTO 100
250 PRINT "PRESS CTRL+END to save the screen"
260 GOTO 100
270 PRINT "PRESS CTRL+END to load the screen"
280 GOTO 100
290 PRINT "PRESS CTRL+END to quit"
300 GOTO 100
310 PRINT "PRESS CTRL+END to save the screen"
320 GOTO 100
330 PRINT "PRESS CTRL+END to load the screen"
340 GOTO 100
350 PRINT "PRESS CTRL+END to quit"
360 GOTO 100
370 PRINT "PRESS CTRL+END to save the screen"
380 GOTO 100
390 PRINT "PRESS CTRL+END to load the screen"
400 GOTO 100
410 PRINT "PRESS CTRL+END to quit"
420 GOTO 100
430 PRINT "PRESS CTRL+END to save the screen"
440 GOTO 100
450 PRINT "PRESS CTRL+END to load the screen"
460 GOTO 100
470 PRINT "PRESS CTRL+END to quit"
480 GOTO 100
490 PRINT "PRESS CTRL+END to save the screen"
500 GOTO 100
510 PRINT "PRESS CTRL+END to load the screen"
520 GOTO 100
530 PRINT "PRESS CTRL+END to quit"
540 GOTO 100
550 PRINT "PRESS CTRL+END to save the screen"
560 GOTO 100
570 PRINT "PRESS CTRL+END to load the screen"
580 GOTO 100
590 PRINT "PRESS CTRL+END to quit"
600 GOTO 100
610 PRINT "PRESS CTRL+END to save the screen"
620 GOTO 100
630 PRINT "PRESS CTRL+END to load the screen"
640 GOTO 100
650 PRINT "PRESS CTRL+END to quit"
660 GOTO 100
670 PRINT "PRESS CTRL+END to save the screen"
680 GOTO 100
690 PRINT "PRESS CTRL+END to load the screen"
700 GOTO 100
710 PRINT "PRESS CTRL+END to quit"
720 GOTO 100
730 PRINT "PRESS CTRL+END to save the screen"
740 GOTO 100
750 PRINT "PRESS CTRL+END to load the screen"
760 GOTO 100
770 PRINT "PRESS CTRL+END to quit"
780 GOTO 100
790 PRINT "PRESS CTRL+END to save the screen"
800 GOTO 100
810 PRINT "PRESS CTRL+END to load the screen"
820 GOTO 100
830 PRINT "PRESS CTRL+END to quit"
840 GOTO 100
850 PRINT "PRESS CTRL+END to save the screen"
860 GOTO 100
870 PRINT "PRESS CTRL+END to load the screen"
880 GOTO 100
890 PRINT "PRESS CTRL+END to quit"
900 GOTO 100
910 PRINT "PRESS CTRL+END to save the screen"
920 GOTO 100
930 PRINT "PRESS CTRL+END to load the screen"
940 GOTO 100
950 PRINT "PRESS CTRL+END to quit"
960 GOTO 100
970 PRINT "PRESS CTRL+END to save the screen"
980 GOTO 100
990 PRINT "PRESS CTRL+END to load the screen"
1000 GOTO 100

```

◆ Demonstration 1

Smile, then get serious

Fire Ant E7.95

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For a fast reader, but I was only halfway through the chapter on to-bumping instruction when when I moved on. There's another phase when the class has finished but a little longer reading time and better writers would be able.

The program, *napoleo*, is much better than its original predecessor. As the code turns into code and you must see your own *Game*, *help* message on *Screen* is by *Screen*. Success brings message to further *Screen* objects. At first glance, it might seem to be a *Screen* variable — the *Screen* are visible again with objects scattered round, including *Screen* objects, and suddenly change to *Screen* objects again.

backing your AEP and father's hazards become apparent during play. Lightning refusers help you to read out loud the right objects in the right order, placing them in the right place to unlock tunnels and component traps. Objects will tell you if they are taken out of order. And, doors to null clarity slight, happening many times before you discover the correct method for each tunnel. message and even the, however, which may get you.

This required patience, multiple spins, low cutting and a fast prystick. It's very addictive — often loses as I reached level 5. Will surely adventure and arcade fans. More please! (4.5)

water	100%
oil	100%
gas	100%
solid	100%



**Multisound
Synthesizer**
£14.99

[illegible]

This unit is designed to allow you to use the sound capabilities of the 64 without loading. The range of control offered is enormous and this review can only hint at all the features available.

The synthesizer consists of three screen displays. You set up the characteristics of the RDS you want using a control screen. This allows you to adjust the attack, decay, sustain, release and the levels for each parameter and indicated by a bar chart.

Switching to the keyboard eleven displays a three octave keyboard with the notes totally identified, e.g. C in blue C, and F in D sharp. As the 64 has four rows of keys to set-up becomes similar to two keyboard organ. As you lay the note in use is indicated. You can move the nine keyboard up or down a row when an essential 1

found this presentation engaging
 & very easy to follow.

The third screen is for special effects, giving complete control over all the remaining sound features built into the set. There are just too many to detail. You have control over all the following: effects, oscillator and frequency sweeping, rise and fall rates and

You can obviously create tubes, but you can also append tubes, store up to nine tubes in the 84's memory, supersample tubes over one of eight built-in drum outputs, or create your own. Lastly, the tubes can be **SMARTE** to tape or mix.

This program is great for two types of user — the one with no prior experience and the experienced user. It is an easy way of trying out different settings so you know what you want to code into your own programs. It's

instructions	FORM
mode of use	FORM
display	FORM
value for instance	FORM



Turtle Jump
£6.99

Hammitt, C. F. August Ave., Broughton
Boston

The screen setting is a map of islands in the Caribbean, with battles occurring between them. Your objective is to get from one island to another and collect treasure points. However, it's not quite as simple as that.

You can jump about distances and travel in anything solid. This means you can travel from one island to another on the backs of the turtles, if you can keep your balance. The only trouble is that if a crocodile appears on the turtles' side, there are a few legs you could certainly jump onto, and there are also some small volcanic islands that appear and later sink beneath the surface. So it is possible, with difficulty, to travel the islands.

Food grams on the inside dial is used to tell us your target level. There is an energy barometer displayed on the screen to guide you.

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You should recover the treasure by jumping in when the chest lid is open and pulling out again before it closes. The longer you're in the more treasure you collect. Collected treasure must be taken back to your home base.

A nice game whose theme is different from the rest of the rest I found it difficult to keep on the theme of the turtles and consequently I ended to end up on one lateral far from the treasure but leading myself silly. Needs work, L.C.

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2169-2170	2170-2171
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2197-2198	2198-2199
2199-2200	2200-2201
2201-2202	2202-2203
2203-2204	2204-2205
2205-2206	2206-2207
2207-2208	2208-2209
2209-2210	2210-2211
2211-2212	2212-2213
2213-2214	2214-2215
2215-2216	2216-2217
2217-2218	



Cash Controller
den €14,95

PlayStation 2	Shogun	Software
200-200	Electronic	Inc. 100
1000000000	1000000000	1000000000

A potentially useful package for those who like to keep track of their expenditure. The routines are nicely written and constructed.

The change starts by preventing a Main Menu. First-time users would then proceed from this to the Budget Manager and set up headings. You are allowed up to 76, e.g. car, housing, phone etc. There is an option to change these if you have second thoughts. You can then allocate a budget to each. Finally you can transfer to the Main Account Menu, and set up an opening balance. To cut out unnecessary repetition, you can just set up standing orders.

You would subsequently update via the Bank Account Menu. Entering transactions is very simple and prompts are clear. First you enter the date, then a check (up to 15 characters), your description (up to 15

enter the heading to be debited (or credited) and the amount. That's all there is to it.

The computer does the appropriate calculations and updates as necessary. You can then call up a number of results, to the screen or printer.

You can print out your budget headings, just for reference. More to the point, you can print out details of your budgets and variances (the difference between what you planned and what you spent). You can also print a statement listing all transactions between two specified dates.

I found the package backwood. My only niggle is that there is no cut color wheel means turning the cover off at the end. L.G.

Multiplatform	80%
ease of use	80%
display	70%
cost	60%



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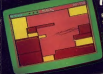


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